**Seoul Retail Case**

Company Q has five franchise stores (A through E) located in an exclusive shopping district in Seoul, South Korea. Each store sells the same brands and items. As per guesstimates, roughly 95% of their sales come from Japanese tourists. Even though the stores bear the name of the same company, they are effectively competitors due to their close proximity to each other. The franchisee of Store B, Mr. Choe, is interested in identifying the factors that affect sales in his store and the extent to which these factors affect sales. He is also interested in identifying the similarities and dissimilarities of these impact factors across the five stores. Mr. Choe plans to use these identified factors for sales and operations planning in his store.

To help answer his questions, Mr. Choe has collected aggregated sales data on all four stores from September 1 2011 to March 16 2013. Here are the variables which are captured in the dataset:

Store ID

Store Name

Number of Customers

Number of Items Sold

Total Sales

Discount: This is the subset of Total Sales and reflects the proceeds from any items sold at a discount.

Average Sales per Customer

Average Sales per Item

Date

Day of week (weekends are thought to be better for business than weekdays)

Distances from Metro Stations X and Y (in meters and feet)

Distance from the nearest main thoroughfare (in meters and feet)

In addition, Mr. Choe was also able to collect data on the total number of Japanese tourists that visited Seoul. However, this data is available only from Feb 14 2012. Further, note that not all of these tourists might have visited Company Q’s retail stores. There might, however, be some correlation between the number of such tourists and some of the variables included in the dataset. Also, there may be differences across stores – for instance, the number of Japanese tourists may have a larger bearing on Store A’s revenues than on Store B’s.

Further, since most of the customers are Japanese, the currency exchange rates may affect their buying habits. The JPY (Japanese Yen)/KRW (Korean Won) ratio is provided for each day in the dataset.

Also, such tourists may be more likely to visit during Japanese national holidays. This effect may be more heightened if the holiday happens to fall on a Friday or a Monday, as it then implies an extended weekend vacation. The binary variable Holiday is set to 1 if the day is part of a holiday weekend such that a Japanese holiday falls on either a Friday or a Monday; otherwise, it is set to zero. For example, if there was a holiday on Friday March 2, 2012, then the binary variable for March 2, 3 and 4 is set to 1. Likewise, if the holiday falls on Monday March 5, the binary variable for March 3, 4 and 5 is set to 1.

Weather may also play a role in the shopping behavior. People may be more likely to shop and spend under certain weather conditions than others. For this purpose, the following data were collected: Actual High Temperature and Outlook (whether it was sunny, cloudy, rainy, snowy, etc).

Store A closed on March 17 2012 and reopened at the same location under new ownership on June 19 2012.

Store C closed on March 17 2012 and reopened at a different location under new ownership on September 2 2012.

Mr. Choe would like to know more about the factors that affect sales in each store and the importance of such factors. In writing your report to Mr. Choe, assume that he is a non-technical person and communicate your findings and analysis accordingly.